### K.L.N. COLLEGE OF ENGINEERING

### POTTAPALAYAM – 630 612, Sivagangai District

(An Autonomous Institution, Affiliated to Anna University, Chennai)



Estd: 1994

### **REGULATIONS 2024**

For Under Graduate Program

### **CHOICE BASED CREDIT SYSTEM**

(For the students admitted from the academic year 2024-2025 onwards)

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(An Autonomous Institution, Affiliated to Anna University, Chennai)

#### **REGULATIONS 2024**

# CHOICE BASED CREDIT SYSTEM (CBCS) Common to all B.E. / B.Tech. Full-Time Programmes (For the students admitted from the academic year 2024-2025 onwards)

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#### **REGULATIONS 2024**

# CHOICE BASED CREDIT SYSTEM (CBCS) Common to all B.E. / B.Tech. Full-Time Programmes

(For the students admitted from the academic year 2024-2025 onwards)

#### **VISION:**

To become a Centre of Excellence in Technical Education and Research in producing Competent and Ethical professionals to the society

#### MISSION:

To impart Value and Need based curriculum to the students with enriched skill development in the field of Engineering, Technology, Management and Entrepreneurship and to nurture their character with social concern and to pursue their career in the areas of Research and Industry.

#### 1 PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this Regulation, unless the context otherwise specifies:

- I. **"Programme"** means Degree Programme, that is B.E./B.Tech. Degree Programme.
- II. **"Discipline"** means specialization or branch of B.E./B.Tech. Degree Programme, like Mechanical Engineering, Information Technology, etc.
- III. "Course" means a theory or practical course that is normally studied in a semester, like Mathematics, Physics, etc.
- IV. "College / Institution" means K.L.N. COLLEGE OF ENGINEERING.
- V. "Chairperson, Academic Council" means the authority of the Autonomous Institution who is responsible for all academic activities of the Institute/Departments for implementation of relevant Rules and Regulations.
- VI. "Controller of Examinations" means the authority of the Autonomous Institute who is responsible for all activities of the End Semester Examinations.
- VII. "Chairperson, BoS" means Chairperson of Board of Studies of each Faculty.
- VIII. "Head of the Institution" means the Principal of the College.
- IX. "Head of the Department" means head of the Department concerned.
- X. "University" means ANNA UNIVERSITY, CHENNAI.

#### 2 ADMISSION

# 2.1 Candidates seeking admission to the first semester of the eight semester B.E. / B.Tech. Degree Programme

Should have passed the Higher Secondary Examinations of (10+2) Curriculum (Academic Stream) prescribed by the Government of Tamil Nadu with Mathematics, Physics and Chemistry as three of the four subjects of the study prescribed under part-III or any other examinations of any University or authority accepted by the Syndicate of the University / Directorate of Technical Education as equivalent thereto.

(OR)

Should have passed the Higher Secondary Examination of Vocational stream (Vocational groups in Engineering / Technology) as prescribed by the Government of Tamil Nadu.

#### 2.2 Lateral Entry Admission (LEA)

(i) The candidates who possess the Diploma in Engineering / Technology awarded by the State Board of Technical Education, Tamil Nadu or its equivalent are eligible to apply for Lateral entry admission to the third semester of B.E. / B.Tech., as per the rules fixed by Government of Tamil Nadu.

(OR)

(ii) The candidates who possess the Degree in Science (B.Sc.,) (10+2+3 stream) with Mathematics as a subject at the B.Sc. Level are eligible to apply for Lateral entry admission to the third semester of B.E. / B.Tech. As per the direction of the University, such candidates shall undergo two additional Engineering subjects in the third and fourth semesters. The subjects shall be approved by Board of Studies and Academic Council.

#### 3 PROGRAMMES OFFERED

Details of programmes being offered by the Institution are listed below:

#### **B.E. Degree Programmes**

- 1. Mechanical Engineering
- 2. Electrical and Electronics Engineering
- 3. Electronics and Communication Engineering
- 4. Computer Science and Engineering
- 5. Computer Science and Engineering (Cyber Security)
- 6. Computer Science and Engineering (Internet of Things)

#### **B.Tech. Degree Programmes**

- 1. Information Technology
- 2. Artificial Intelligence and Data Science

#### 4 STRUCTURE OF THE PROGRAMMES

Each programme shall have a curriculum comprising of Theory, Theory cum Practical and Practical courses with well-defined Program Outcomes and Programme Educational Objectives (PEO) as per Outcome Based Education (OBE) framework. The content of each course is designed based on the Course Outcomes (CO).

#### 4.1 Categorization of Courses

Every B.E./B.Tech. Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

- i. Humanities Social Sciences and Management (HSM) courses include Technical English, Engineering Ethics and Human Values, Communication skills, Environmental Science and Engineering.
- ii. Basic Sciences (BS) courses include Mathematics, Physics, Chemistry, etc.
- iii. **Engineering Sciences (ES) courses** include Industrial Practices, Engineering Graphics, Basics of Electrical / Electronics / Mechanical / Computer Engineering, Instrumentation etc.
- iv. **Professional Core (PC) courses** include the core courses relevant to the chosen specialization/branch.
- v. **Professional Elective (PE) courses** include the elective courses relevant to the chosen specialization / branch.
  - Professional Elective Courses are listed in groups called verticals that represent a particular area of specialisation / diversified group.
  - Students are permitted to choose all the Professional Electives from a particular vertical or from different verticals.
  - Further, only one Professional Elective course shall be chosen in a semester horizontally (row-wise).
- vi. Open Elective (OE) courses include the courses from other branches which a student can choose from the list specified in the curriculum of B.E. / B. Tech. Programmes.
- vii. **Employability Enhancement Courses (EEC)** includes Project Work, Internship, Creative and Innovative Project, Seminar, Professional Practices, Industrial/Practical Training.
- viii. Mandatory Courses (MC) include Personality and Character development and the courses recommended by the regulatory bodies such as AICTE, UGC, etc

#### 4.2 Personality and Character Development

All students shall enroll, on admission, in any one of the personality and character development programmes NSS/NSO/YRC and undergo training / conduct activities for about 80 hours and attend a camp of about seven days. The training shall include classes on hygiene and health awareness and also training in first-aid. Alternately, activities of science, literature and arts also help for personality and character development. So, students shall conduct and participate actively in Science club/Literary Forum/Fine Arts activities for 80 hours and participate in at least ONE event.

- National Service Scheme (NSS) will have social service activities in and around the College.
- National Sports Organization (NSO) will have sports, games, drills and physical exercises.
- Youth Red Cross (YRC) will have activities related to social services in and around College.

While the training activities will normally be during weekends, the camp will normally be during vacation period.

- Science club shall organize activities of popularization of science and scientific temper through activities related to astronomy, works of great scientists from India and abroad, observing National Science Day, etc.
- Literary Club like English club, KLNSHA, 'Tamil llakkiyaMandram', which shall organize colourful literary events to propagate good humanist values, morals and ethics reflected in the literature.
- Fine Arts Club like music, painting and documentary films with social themes shall be encouraged.
  - Students shall enroll and take active participation in anyone of the above activities and shall have 75% attendance.

#### 4.3 **Induction Programme**

Induction Programme is Mandatory and shall be conducted for first year students during first semester. List of students who have successfully completed the Induction Programme shall be certified by the Head of the Institution. The completion of the programme shall be printed in the grade sheet as "COMPLETED".

#### 4.4 Number of courses per semester

Each semester curriculum shall normally have a blend of lecture courses not exceeding 7 Theory, Theory cum Practical courses, 4 Practical and Employability Enhancement Course(s). However, the total number of courses per semester shall not exceed 10 excluding non credit courses and each semester shall have a maximum of two non-credit courses. Each Course shall have credits assigned as per clause 4.5.

#### 4.5 **Credit Assignment**

Each course is assigned with certain number of credits based on the Table 4.1 **Table 4.1 Credit Assigned for Contact Periods** 

Contact Period Per Week	Credit(s)
1 Lecture Period	1
1 Tutorial Period	1
2 Practical Periods (Laboratory / For	
EEC Courses like Seminar / Project	1
Work / etc.)	

#### 4.6 Industrial Training /Internship

- 4.6.1 The students may undergo Internship at a Research organization / University/ Industry (after due approval from the Head of the Institution) for the period prescribed in the curriculum during the summer / winter vacation, in lieu of Industrial training. Attendance Certificate mentioning the period of Industrial Training / Internship and signed by the competent authority of the industry, as per the format shall be submitted to the Head of the Institution. The attendance certificate shall be forwarded to the COE.
- 4.6.2 The student shall optionally undergo Industrial Training/ Internship in Research organization like ISRO, DRDO, CSIR etc., or reputed Industry which has an average annual turnover of more than 200 crores over a period of 5 years. Credits shall be assigned as per the Table 4.2. and the credits earned will be indicated in the Grade Sheet. If the student earns three credits in Industrial Training/ Internship, the student may drop one Professional Elective (only one professional elective can be dropped). In such cases, Industrial Training / Internship need to be undergone continuously from one organization or with a combination one two week and one four week from one/two organizations. However, if the number of credits earned is 1 or 2, then these credits shall not be considered for classification of the degree. Students shall get permission from the committee constituted by Head of the Institution for taking Industrial Training/Internship and the Certificate of completion of Industrial Training / Internship shall be forwarded to the COE.

Table 4.2 Credit(s) Assigned for Industrial Training /Internship

Duration	Credit(s)
2 weeks	1
4 weeks	2
6 weeks	3

1 Week = 40 Internship Hours

#### 4.7 Industrial Visit

Every student is expected to go for at least one Industrial Visit starting from the second year of the Programme. The Heads of Departments shall ensure that necessary arrangements are made in this regard.

#### 4.8 Value Added Courses

The students may optionally undergo Value Added Course to earn 1 or 2 credits over and above the total credit requirement prescribed in the curriculum. One-Credit / Two-Credit courses can be offered by the departments from fifth semester onwards, with the prior approval from the Chairperson, Academic Council. The Value Added Courses offered should not be a course listed in the curriculum of any programme offered in the Institution. The details of the syllabus, time table and faculty should be approved by the Chairperson, Academic Council. Students can take a maximum of two 1-credit courses or one 2 - credits course during the entire duration of the programme. The credits shall be assigned as per the Table 4.3.

**Table 4.3 Credit Assigned for Value Added Course** 

S.No.	CATEGORY	L	T	Р	С
i.	Theory Course	1	0	0	1
1.	Theory Course		0	0	2
ii	Laboratory Courses	0	0	4	2
"		0	0	2	1
iii	Theory integrated Laboratory Course	1	0	2	2

#### 4.9 Competency Development Courses

Students may optionally undergo industry relevant Competency Development Courses approved by BoS and ACM from second year onwards. These experiential learning courses will be offered in two categories as purely Laboratory Based Courses and Theory Integrated Laboratory Courses with the following credits as per the Table 4.4.

**Table 4.4 Credit Assigned for Competency development Courses** 

S.No.	CATEGORY	L	Т	Р	С
:	Laboratory Courses	0	0	4	2
I.	Laboratory Courses	0	0	2	1
ii	Theory integrated Laboratory Course	1	0	2	2

These courses are handled by the industry persons or the industry trained / certified faculty members along with one mentor from the firm. The student may enrol one course in a semester under this scheme. A student may accumulate up to 3 credits through such courses, and such credits will be considered in lieu of the Professional Elective or Open Elective course.

#### 4.10 Off campus courses (Physical or Online Mode)

Students are permitted to optionally enroll and study a maximum of three off campus courses in physical/online/hybrid mode. The successful completion of these courses through any of the following modes shall be considered in lieu of professional elective / open elective courses of curriculum as approved by the Head of the Institution.

4.10.1 Students are permitted to optionally enroll and study these courses through SWAYAM - NPTEL platforms and credit transfer is to be done based on the marks and certificate provided by the NPTEL. The number of credits and transfer of credits are based on the procedure explained in Table 4.5 and the Mapping of the marks with the grades is explained in Table 4.6. The mapping of marks with grades is applicable, only if the student passes the course as per the guidelines of NPTEL. The details regarding online courses taken up by the student, marks / credits earned and the approval for the course from Academic Council shall be sent to the Controller of Examinations, in the subsequent semester(s) along with the details of the elective(s) to be dropped. The equivalent elective category i.e open elective or professional

elective has to be mentioned in the recommended online course list and the same has to be displayed in the website after getting approval from BoS and Chairperson Academic Council.

If a student has successfully completed more number of credits than the required credit for open /professional elective, the higher grade point will be given more weightage. For example, if a student has successfully completed 2 eight week online courses, then the computation of Grade point for dropping one PE/OE in lieu of those online courses is as follows:

Grade point = (2 credits \* higher grade point obtained + 1 Credit \* lower grade point obtained) / 3 credits.

Table 4.5 Duration of the course and Number of credits for NPTEL course

S.No.	Number of Weeks	Number of Credit(s)
1	4	1
2	8	2
3	12	3
4	16	4

Table 4.6 Mapping of Marks scored in NPTEL course and Credits earned

Letter Grade	Marks
0	90-100
A+	80-89
Α	70-79
B+	60-69
В	50-59
С	40-49

Copies of the Online Course certificates should be submitted to the COE through Head of the Department.

4.10.2 Students are permitted to optionally enroll and study the courses in physical / hybrid / online modes offered by reputed Central / State funded Universities / Institutions which are in the top 20 positions in the latest NIRF ranking and also conducting examination towards award of marks and grades. (NIRF ranking of any of the last three years with respect to the year in which course is to be registered; NIRF ranking is based on respective stream for professional elective courses and based on any stream for open elective courses).

Students are also permitted to enroll and undergo such courses in Online mode at Universities abroad in top 500 in QS ranking in the last three years.

Students are also permitted to study courses of a particular semester in a University / Institution abroad based on MoU. A learning agreement shall be evolved to map all the courses offered in the programme and the courses offered in University abroad as per the procedure outlined by Chairperson, Academic Council. The credits earned by the students in the University abroad shall be transferred as per the learning agreement based on the decision of the Chairperson, Academic

Council. The students can enroll for this course only if the course is offered directly by Institution / University and not with the edutech platforms.

4.10.3 Students are also permitted to enroll and study the courses in physical / hybrid mode (not less than 50% in physical mode) that are offered by (i) National/State funded research institutions /laboratories and (ii)(a) reputed companies (manufacturing or software) related to the programme, and (ii)(b) reputed companies involved in transfer of knowledge provided the knowledge transferring company is a spinoff from an Engineering/Technology practicing Industry and sharing the work experience of the respective industry. The companies mentioned in 4.10.3 (ii) (a) and the company with which the knowledge transfer company associated in the case of 4.10.3 (ii) (b) should have average annual turnover of more than 200 crores over a period of 5 years. However, the academic content and delivery shall be in consonance with the academic standards and norms.

The minimum qualification of the course instructor from the company as mentioned in 4.10.3. (ii) shall be B.E./B.Tech with 10 years of research / industrial experience. Such courses shall be offered through MoU. The design of the courses with regard to the syllabus content, duration of each course and number of credits offered for each course shall be discussed and recommended by the Board of Studies and approved by Academic Council as per the Regulations.

For the offer of each course under 4.10.3, a course coordinator shall be nominated from the department who shall also attend such course and shall coordinate the question paper setting and answer script evaluation with the course instructor from research institution /laboratories /industry/ company for the continuous assessment and end semester examination. The passing requirements are as per regulations.

**4.11 Skill Based Courses** are the courses for all disciplines which lead to knowledge enhancement in aptitude, soft skills and coding.

#### 4.12 Research Publication Course

All students are eligible to register for the research publication course in V Semester. The outcome of the course will be a publication in SCI/SCI expanded indexed journals in Science, Engineering and Technology. Number of Credits for this course is 3. A maximum of two (2) students can form a team and register for this course at the beginning of the fifth semester of the programme. The student shall work under a faculty advisor who has published at least 2 papers in SCI/SCI-expanded indexed journals or who is the recognized supervisor of Anna University. On successful publication / acceptance, the student can transfer the credit instead of one professional elective in seventh semester. Then Grade 'O' will be awarded for the student/students. If the student is not able to publish / receive acceptance before course registration during seventh semester, the registration will be automatically cancelled.

#### 4.13 Mandatory Courses

The students shall study the mandatory courses prescribed in the curriculum and it will be printed in the grade sheet. However, it will not be considered for computation of CGPA.

## 4.14 B.E. / B. Tech. (Hons.) and B.E. / B. Tech. (Minor with specialization in another discipline)

B.E / B.Tech. (Hons.) and B.E./B.Tech. minor with specialisation in another discipline will be optional for students and the students shall be permitted to select any one of them only

#### 4.14.1 B.E / B.Tech. (Hons.)

- For the award of B.E./B.Tech. (Hons.), the students should have taken additional courses (minimum of 18 credits) from a vertical of the same programme or more than one vertical of the same programme. Students should have passed all the courses prescribed in the curriculum and additional courses in the first attempt and should have earned a minimum of 7.50 CGPA taking into account of all the courses prescribed in the curriculum and additional courses.
- For these 18 credits students can optionally enroll and study a maximum of 6 credits in online mode from SWAYAM NPTEL platform (in addition to the three online courses permitted for courses of curriculum), as approved by ACM
- The students including lateral entries will be permitted to register the courses from V Semester onwards provided the marks earned by the students until III semester should be of CGPA 7.50 and above and cleared all the courses in the first attempt.
- If a student decides not to opt for Honours, after completing certain number of additional courses, the additional courses studied shall be considered instead of the Professional Elective courses which are part of the curriculum. If the student has studied more number of such courses than the number of Professional Elective Courses required as per the curriculum, the courses with higher grades shall be considered for the calculation of CGPA. Remaining courses shall be printed in the mark sheet, however, they will not be considered for calculation of CGPA.
- B.E./B.Tech. (Hons.) shall be offered by the Department irrespective of the number of students enrolled.
- If the student has failed in the additional courses or faced shortage of attendance, the courses will not be printed in the grade sheet and will not be considered for CGPA calculation and classification of degree.
- The student has to enrol for these additional courses separately and pay a tuition fee for studying these six additional courses and pay additional exam fee.

#### 4.14.2 B.E./B.Tech. (Minor with specialization in another discipline)

- For the award of B.E./B.Tech. (Minor with specialization in another discipline), the student should have earned additionally a minimum of 18 credits in any one of the verticals offered from other Engineering Disciplines / Science and Humanities / Management.
- For these 18 credits students can optionally enroll and study a maximum of 6 credits in online mode from SWAYAM NPTEL platform (in addition to the three online courses permitted for courses of curriculum), as approved by ACM.

- The students, including Lateral Entry, shall be permitted to register for the courses from Semester V onwards provided the students have earned a minimum CGPA of 7.50 until Semester III.
- B.E./ B.Tech. Minor shall be offered by the Department irrespective of the number of students enrolled.
- If a student decides not to opt for Minor, after completing certain number of courses, the additional courses studied shall be considered instead of Open Elective courses which are part of the curriculum. If the student has studied more number of such courses than the number of open electives required as per the curriculum, the courses with higher grades shall be considered for calculation of CGPA. Remaining courses shall be printed in the grade sheet; however, they will not be considered for calculation of CGPA and the same shall be indicated in a foot note appropriately.
- If the student has failed in the additional courses or faced shortage of attendance, they will not be printed in the grade sheet and will not be considered for CGPA calculation and classification of degree.
- The student has to enrol for these additional courses separately and pay a tuition fee for studying these six additional courses and pay additional exam fee.

#### 4.15 Medium of Instruction

Except Tamil Courses, the medium of instruction is English for all courses, examinations, seminar, presentations and project reports.

#### 5 DURATION OF THE PROGRAMMES

**5.1** A student is normally expected to complete the B.E./ B.Tech. Programmes mentioned in Table 5.1.

		_
Admission Stream	Minimum Duration (Years / Semesters)	Maximum Duration (Years / Semesters)
Regular	4 / 8	7 / 14
Lateral Entry	3/6	6 / 12

**Table 5.1 Duration of UG Programmes** 

- **5.2** Each semester shall normally consist of 75 working days or 540 periods of 50 minutes each. The Head of the Institution shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught.
- 5.3 The Head of the Institution may conduct additional classes for improvement, special coaching, conduct of model test etc., over and above the specified periods. But for the purpose of calculation of attendance requirement for writing the end semester examinations (as per clause 6) by the students, following method shall be used.

Percentage of Attendance =  $\frac{\text{Total no. of periods attended in all the courses per semester}}{(\text{No. of periods/week as prescribed in the curriculum) x}} X 100$ 15 taken together for all courses of the semester

5.4 The total period for completion of the programme reckoned from the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study (vide clause 18) in order that he/she may be eligible for the award of the degree (vide clause 16).

#### 6 COURSE REGISTRATION

6.1 The Department is responsible for registering the courses that each student is proposing to undergo in the ensuing semester. Each student has to register for all courses to be undergone in the curriculum of a particular semester (with the facility to drop courses to a maximum of 6 credits (vide clause 6.2)). The courses dropped in earlier semesters can be registered in the subsequent semesters when offered. The student should also register for courses for which the student has failed in the earlier semesters.

The registration details of the candidates shall be approved by Head of the Institution and forwarded to the Controller of Examinations. This registration is for undergoing the course as well as for writing the End Semester Examinations. The courses that a student registers in a particular semester may include

- i. Courses of the current semester.
- ii. Courses dropped in the lower semesters
- iii. Courses for the award of Honors/Minor degree (Subject to a maximum of 6 credits)
- iv. Core and Elective courses which the student failed. (Attendance and continuous evaluation is not required)
- v. Value Added Courses/Skill Based Courses(If applicable)

The maximum number of credits that can be registered in a semester is 36. However, this does not include Value Added Course, Skill based Course, the number of Re-appearance (U) and Withdrawal (WD) courses registered by the student for the appearance of Examination.

#### 6.2 Flexibility to Drop or Add Courses

- **6.2.1** A student has to earn the total number of credits specified in the curriculum of the respective Programme of study in order to be eligible to obtain the degree.
- **6.2.2** From the second to final semesters, the student has the option of dropping existing courses in a semester during registration. Total number of credits of such courses shall not exceed 6 per semester. The student is permitted to drop the course(s) within 30 days of the commencement of the academic schedule.
- 6.2.3 From the V to VIII semesters, the student has the option of registering for additional courses in a semester. With regard to enrolling for B.E. / B. Tech. (Hons) or B.E. / B. Tech. Minor with specialization in another discipline, the total number of credits that a student can add in a semester is limited to 6, subject to a maximum of 2 courses. Maximum number of credits enrolled in a semester shall not exceed 36. The online courses registered for B.E. / B. Tech. (Hons.) and B.E. / B. Tech. minor shall be over and above these 36 credits.

#### 6.3 Choice of Professional Elective Courses

The Professional Elective Courses are listed in the Curriculum in Table format as verticals (Specialisation groups). A student can choose all the Professional Elective Courses either from one of the verticals or a combination of courses from all verticals in a semester. However, students irrespective of enrolling for additional courses for B.E. / B. Tech. (Hons.) are not permitted to choose more than one course from a row.

Students are permitted to enrol more than one elective course from the same vertical in a semester. For a professional elective course and open elective course, minimum number of students enrolment permitted shall be 10. However, the minimum number is not applicable for students enrolling B.E. / B. Tech. (Hons) and B.E. / B. Tech. Minor. For the offer of each professional elective atleast two choices shall be offered.

#### 7 ATTENDANCE REQUIREMENTS FOR COMPLETION OF THESEMESTER

- 7.1 A student who has fulfilled the following conditions shall be deemed to have satisfied the requirements for completion of a semester. Ideally every student is expected to attend all classes of all the courses and secure 100% attendance. However, in order to give provision for certain unavoidable reasons such as Medical / participation in sports, the student is expected to attend atleast 75% of the classes. Therefore, he/she shall secure not less than 75% (after rounding off to the nearest integer) of overall attendance as calculated as per clause 5.3.
- 7.2 However, a student who secures overall attendance between 65% and 74.49% in the current semester due to medical reasons (prolonged hospitalization / accident / specific illness) / Participation in Sports events may be permitted to appear for the current semester examinations subject to the condition that the student shall submit the medical certificate / sports participation certificate attested by the Head of the Institution. The same shall be forwarded to the Controller of Examinations for record purposes.
- 7.3 Students who secure less than 65% overall attendance shall not be permitted to write the End Semester Examinations and not be permitted to move to the next semester. They are required to repeat the incomplete semester in the next academic year, as per the norms prescribed.

#### 7.4 Repeating the Semester

When the Student repeats the semester, the student shall attend the classes, satisfy the attendance requirements, earn Continuous Assessment marks and appear for the End Semester Examinations.

#### 8 COUNSELLING SYSTEM

Every program will have academic mentors, class coordinators and student counselors to monitor and improve the academic performance of the students.

#### 8.1 Academic Mentor

There shall be one academic mentor for each batch of students. He / She will be appointed by the Head of the department concerned. Academic mentor is the chairperson of the class committee. The responsibility of Academic mentor shall be:

- To act as the channel of communication between the HOD and the students of the respective class.
- To collect and maintain various statistical details of students.
- To plan and conduct the class committee meetings.
- To monitor the academic performance of the students including attendance.
- To focus on the students' welfare like awards, medals, scholarships and to arrange industrial visits.

#### 8.2 Class Coordinator

There shall be one class coordinator for each class. He / She will be appointed by the Head of the department concerned. The responsibility of the Class coordinator shall be:

- To act as the channel of communication between counselors and Academic mentor of the respective class.
- To make arrangements for class committee meeting.
- To arrange coaching classes for the weak students.
- To authorize the final registration of the courses at the beginning of each semester.
- To monitor the academic performance and attendance of the entire class.

#### 8.3 Student Counsellor

The Head of the Department will attach a certain number of students to a teacher of the Department, who shall function as student counsellor for those students throughout their period of study to help the students in planning their courses of study and for general advice on the academic programme. The student counsellor shall advise the students in registering of courses, authorize the process, monitor their attendance and progress and counsel them periodically. If necessary, the student counsellor may also discuss with or inform the parents about the progress / performance of the students concerned.

The responsibilities of the student counsellor shall be:

- To inform the students about the various facilities and activities available to enhance the student's curricular and co-curricular activities.
- To guide student enrolment and registration of the courses.
- To monitor the academic and general performance of the students including attendance and to counsel them accordingly.
- To collect and maintain the academic and co-curricular records of the students.

#### 9 CLASS COMMITTEE

- **9.1** Every class shall have a class committee consisting of teachers of the class concerned, student representatives and a Chairperson/Academic Mentor who is not teaching the class. The functions of the class committee include
  - Solving academic problems experienced by students in the class room and in the laboratories.
  - Clarifying the regulations of the degree programme and the details of rules therein particularly (clause 5 and 7) which should be displayed on college Notice-Board.
  - Informing the student representatives about the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
  - Informing the student representatives about the details of Regulations regarding weightage used for each assessment of all courses offered in that semester.
  - Analyzing the performance of the students of the class after each test and finding the ways and means of solving problems, if any.
  - Identifying the slow learners and requesting the teachers concerned to provide some additional help or guidance or coaching to such slow learners.
  - Encouraging students to enroll in NPTEL online courses
- **9.2** The class committee for a class under a particular branch is normally constituted by the Head of the Department/Head of the Institution.
- **9.3** The class committee shall be constituted within the first week of each semester.
- **9.4** At least 4 student representatives (usually 2 boys and 2 girls) shall be included in the class committee.
- **9.5** The Chairperson/Academic Mentor invites the Class Coordinator(s), Course Handlers and The Head of the Department to the class committee meeting.
- 9.6 The Chairperson/Academic Mentor is required to prepare the minutes of every meeting, submit the same to Head of the Institution within two days of the meeting and arrange to circulate it among the students and teachers concerned. If there are some points in the minutes requiring action by the Management, the same shall be brought to the notice of the Management by the Head of the Institution.
- 9.7 The first meeting of the class committee shall be held within one week from the date of commencement of the semester, in order to inform the students about the nature and weightage of assessments within the framework of the Regulations. Two or three subsequent meetings may be held in a semester at suitable intervals.

The cumulative attendance particulars of each student shall be informed at the end of every such meeting to enable the students to know their attendance details to satisfy the clause 7 of this Regulation.

During these meetings the student members representing the entire class, shall meaningfully interact and express the opinions and suggestions of the other students of the class in order to improve the effectiveness of the teaching-learning process.

#### 10 COURSECOMMITTEE FOR COMMON COURSES

- 10.1 A Theory / Theory cum Practical / Practical course handled by more than one teacher shall have a "Course Committee" comprising of all teachers teaching that course. One of the senior teachers shall be nominated as Course Coordinator by the Course Coordination Committee (CCC) duly approved by the Head of the Department/Head of the Institution.
- 10.2 The Course Committee meeting shall be held within fifteen days from the date of commencement of the semester. The procedure for the attainment of Course Outcomes shall be decided in the meeting. During the meetings, the Program Assessment Committee recommendations will be considered to improve the effectiveness of the teaching-learning process.
- 10.3 Wherever feasible, the Course Committee shall prepare a common question paper for the continuous assessment tests also. The question paper for the End Semester Examination is common.

#### 11 SYSTEM OF EXAMINATION

- **11.1** Performance in each course of study shall be evaluated based on (i) Continuous Internal Assessment throughout the semester and (ii) End Semester Examination.
- **11.2** Each course, theory course or theory cum practical course or practical course (including project work) shall be evaluated for a maximum of 100 marks.
- **11.2.1** For all theory courses, the continuous internal assessment will carry 40 marks while the End Semester Examination will carry 60 marks.
- **11.2.2** For all theory cum practical course, the continuous internal assessment will carry 50 marks while the End Semester examination will carry 50 marks.
- **11.2.3** For all practical courses, the continuous internal assessment will carry 60 marks while the End Semester Examination will carry 40 marks.
- **11.2.4** The continuous internal assessment for the project work/mini project will carry 60 marks while the End Semester Examination will carry 40 marks.
- **11.3** Industrial training and technical seminar shall carry 100 marks and shall be evaluated through internal assessment only.
- 11.4 The End Semester Examination (theory, theory cum practical and practical) of 3 hours duration shall ordinarily be conducted between October and December during the odd semesters and between April and June during the even semesters.
- 11.5 The End Semester Examination for project work/mini project shall consist of evaluation of the final report submitted by the student or students of the project group (of not exceeding 4 students) by an external examiner and an internal examiner, followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner, the supervisor of the project group and an internal examiner.
- **11.6** For the End Semester Examination in theory, theory cum practical and practical courses including project work the internal and external examiners shall be appointed by the Controller of Examinations.

#### 12 PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

#### 12.1 Theory Courses

Three tests shall be conducted during the semester by the Exam Management Cell (EMC) in a centralized manner. One improvement test is allowed at the end of the semester. The best three assessments shall be considered for continuous internal assessment. Assessment of Theory courses is given in Table 12.1.

**Table 12.1 Assessment of Theory Courses** 

Assessment -	I	Assessment – II Assessment –			· III
Individual Assignment / case study/ seminar / mini project		Individual Assignment / case study/ seminar / mini project		Individual Assignment / case study/ seminar / mini project	Written test
40	60	40	60	40	60

#### 12.2 Laboratory Courses

The maximum marks for Internal Assessment shall be 60 in case of laboratory courses. Every practical exercise / experiment shall be evaluated based on conduct of experiment / exercise and records maintained. There shall be at least two tests namely midterm test and model exam. The criteria for arriving at the Internal Assessment marks of 60 are as follows: 75 marks shall be awarded for successful completion of prescribed experiments done in the laboratory and 25 marks shall be awarded for midterm test and for model exam. The total marks shall be arrived to 60 and rounded to the nearest integer. Continuous Internal Assessment of laboratory courses is given in Table 12.2.

**Table 12.2 Assessment of Laboratory Courses** 

S.No	Category	Marks allotted
i.	Evaluation of Laboratory observation, Record	75 Marks
ii.	Test(Mid-term + Model exam)	25 Marks

#### 12.3 Theory Courses with Laboratory Component

Weightage of internal assessment and end semester examination marks will be 50% each. The distribution of marks for the theory and laboratory components in the internal assessments and end semester examination for different types of courses are provided in the Table 12.3.a. Procedure for awarding the internal marks is shown in Table 12.3.b. For theory component 4 tests shall be conducted and the best three shall be considered for continuous assessment marks and for laboratory component one assessment test/model exam shall be conducted and this practical test marks shall be considered for continuous assessment

Table 12.3.a Theory Courses with Laboratory Component (Weightage of marks)

L	T	Р	С	Internal Assessment		End Semester Examination
1	0	4	3	Laboratory (25%)	Theory (25%)	Laboratory only (50%)
1	0	2	2	Laboratory (25%)	Theory (25%)	Laboratory only (50%)
2	0	2	3	Theory (25%) Laboratory (25%)		Theory (25%) Laboratory (25%)
2	1	2	4	Theory (25%) Laboratory (25%)		Theory (35%) Laboratory (15%)
3	0	2	4	Theory (25%) Laboratory (25%)		Theory (35%) Laboratory (15%)
2	0	4	4	Theory (25%)	Laboratory (25%)	Theory (15%) Laboratory (35%)

Table 12.3.b Assessment of Theory Courses with laboratory Component

	Theory component						
Assessme	nt –I	Assessme	nt –II	Assessmer	nt –III	Assessme	ent –IV
Individual Assignment / case study/ seminar / mini project	Written test	Individual Assignment/ case study/ seminar / mini project	Written test	Individual Assignment / case study/ seminar / mini project	Written test	Evaluation of Laboratory Observation, Record	Practical test
40	60	40	60	40	60	75	25

#### 12.4 Project Work/Mini Project

#### 12.4.1 Project Work/Internship

- The student shall register for project work in final semester. Project work may be assigned to a single student or to a group of students not exceeding 4 per group.
- The student is also permitted to undergo a semester long internship in an industry/academic (reputed Institutions like IITs/NITs) /research institution
- Project work shall be carried out under the supervision of a "qualified teacher" (possessing PG Degree or Ph.D Degree) in the department concerned.
- The project work carried out in industry/academic/research institution shall be jointly supervised. The project work shall be jointly supervised by a supervisor of the department and an expert from the organization as a joint supervisor and the student has to meet the supervisor periodically and to attend the review committee meetings for evaluating the progress. The review meetings if necessary may also be arranged in online mode with prior approval from the Head of the Institution and suitable record of the meetings shall be maintained.
- The Head of the Department shall constitute a review committee for each programme. There shall be a minimum of three members in the review committee. The project supervisor will be one of the members of the Review Committee.
- There shall be three reviews during the semester by the review committee. The student shall make presentation on the progress made before the committee. The total marks obtained in the three Reviews shall be arrived to 60 marks.
- The maximum marks for Continuous Assessment is fixed as 60 and the End Semester Examination (project report evaluation and viva-voce examination)

- carries 40 marks for project work.
- The project report shall carry a maximum of 10 marks. The project report shall be submitted as per the approved guidelines as given by the Chairperson, Academic Council. Same mark shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 30 marks for project work. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.
- The continuous assessment and End Semester Examinations marks for Project Work will be distributed as indicated in Table 12.4.a.
- If a candidate fails to submit the project report on or before the specified deadline, he/she is deemed to have failed in the Project Work and shall reregister for the same in a subsequent semester.
- Students shall also undertake a start-up activity for the development of products
  as part of project work. If the outcome of a start up is a fully developed product
  and whose concept is tested and validated, then it shall be considered in lieu of
  the project work. Such students shall submit a start up report. The evaluation of
  the start-up is as per the evaluation of project work.

**Continuous Assessment End Semester Examination** 60 Marks 40 Marks Viva-Voce Report Review 1 Review 2 Review 3 External Internal Evaluation Supervisor Examiner Examiner 10 20 30 10 10 10 10

**Table 12.4.a Assessment of Project Work** 

#### 12.4.2 Mini Project

- The maximum marks for Continuous Assessment is fixed as 60 and the End Semester Examination (project report evaluation and viva-voce examination) carries 40 marks for mini project work.
- The Head of the Department shall constitute a review committee for mini project.
   There shall be a minimum of three members in the review committee. The mini project supervisor will be one of the members of the Review Committee.
- There shall be three assessments during the semester by a review committee.
   The student shall make presentation on the progress made before the committee.
   The total marks obtained in the three reviews shall be arrived to 60 marks
- The mini project report shall carry a maximum 10 marks. Same mark shall be awarded to every student within the project group for the project report. The vivavoce examination shall carry 30 for mini project. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.
- The continuous assessment and End Semester Examinations marks for Mini Project will be distributed as indicated in Table 12.4.b.

Table 12.4.b Assessment of Mini Project

Continuous Assessment 60 Marks			End Semester Examination 40 Marks				
	Review 2	Review 3	Report Evaluation	Viva-Voce			
Review 1				External	Internal	Supervisor	
				Examiner	Examiner	Supervisor	
10	20	30	10	10	10	10	

#### 12.5 Other Employability Enhancement Courses

#### (a) Assessment for Technical seminar

The Technical Seminar shall carry 100 marks and shall be evaluated through continuous assessment only. Every student is expected to present a minimum of 2 seminars / demonstrations per semester before the evaluation committee and for each technical seminar, marks can be equally apportioned. The two member committee appointed by Head of the Department will evaluate the seminar and at the end of the semester the marks can be consolidated and taken as the final mark. The evaluation shall be based on the seminar paper/ report (40%), presentation (40%) and response to the questions asked during presentation (20%).

#### (b) Assessment for Industrial / Practical Training / Internship/Summer Project

The Industrial / Practical Training / Internship/ Summer Project shall carry 100 marks and shall be evaluated through continuous assessment only. At the end of Industrial / Practical training / Internship / Summer Project, the student shall submit a certificate from the organization where the student has undergone training and a brief report about the training. The evaluation will be made based on this report, presentation and a Viva-Voce Examination conducted internally by a three member Departmental Committee. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list and sent to Controller of Examinations by the Head of the Department. The evaluation shall be based on the seminar paper/ report (40%), presentation (40%) and response to the questions asked during presentation (20%).

For all the courses under Employability Enhancement Courses Category, except the Project Work/Mini Project/Professional Communication Laboratory, the evaluation shall be done with 100% internal marks and as per the procedure described in clause 12.5 (a) / (b).

#### 12.6 Assessment for Value Added Courses

- The one / two credit Value Added Course shall carry 100 marks and shall be evaluated through continuous assessments only. Two Assessments shall be conducted during the semester by the Department concerned.
- The duration of assessment is one hour each. The total marks obtained in the
  tests shall be reduced to 100 marks and rounded to the nearest integer. The
  Head of the Department may identify a faculty member as coordinator for the
  course.

- A committee consisting of the Head of the Department, mentor from the firm and a senior Faculty member nominated by the Head of the Institution shall monitor the evaluation process. The grades shall be assigned to the students by the above committee based on their relative performance. The coordinator for the course is responsible for maintaining and processing the records with regard to assessment marks and results.
- The passing requirement for value added courses shall be 50% of the marks prescribed for the course (Internal assessment only).
- After successful completion, the list of students along with the marks earned shall be forwarded to the Controller of Examinations for appropriate action at least one month before the commencement of End Semester Examinations.
- The grades earned by the students for Value Added Courses will be recorded in the grade sheet however the same shall not be considered for the computation of CGPA.

#### 12.7 Assessment for Competency Development Courses

- A student may accumulate upto3 credits through Competency Development Courses, and such credits will be considered in lieu of the Professional Elective or Open Elective courses.
- The evaluation of the Competency Development Courses is fully internal and shall be jointly done by the course coordinator from the institution and the mentor from the firm. (a) If the course involves certification from the firm/company, then 20% of the total marks will be included in the internal assessment marks, 30% will be included from the marks provided by the firm and 50% shall be evaluated by the respective Course Coordinators of the college by conducting appropriate theory and / or laboratory tests. (b) If there is no certification from the firm/company, then 50% will be included from the marks provided by the firm and 50% shall be evaluated by the respective Course Coordinators of the college by conducting appropriate theory and / or laboratory tests.

# 12.7.1 Procedure to drop Professional Elective / Open Elective course and computation of Grade point.

• A student is permitted to drop one Professional Elective / Open Elective course as per the procedure given in Table.12.5.

Table: 12.5. Procedure to drop Professional Elective / Open Elective course(s)

No. of courses	credite	Courses to be printed in the grade sheet	elective/open elective	No. of credits considered for GPA/CGPA calculation		
1	1/2	1	-	-		
2	3/4	2	1	3		
3	3/4/5	3	1	3		

The credits earned by the student of the successfully completed Competency Development Courses shall be recorded in the grade sheet. If a student has not successfully completed the Competency Development Courses during the semesters V, VI and VII, then the same shall not be recorded in the grade sheet. Upon successful completion of the Competency Development Course(s) and after earning the required credits (3) only, the students are allowed to drop the elective course.

#### Method for computation of Grade point of dropped PE / OE course:

If a student has successfully completed two Competency Development Courses, then the computation of Grade point for one PE/OE course dropped in lieu of those two competency development courses is as follows.

For example, for two courses of two credit each, if the grades obtained are,

Course 1– C grade – 5 points

Course 2– O grade – 10 points

Then, the grade point of the dropped course for the calculation of CGPA is obtained as:

(1x5 + 2x10)/3 = 8.33.

One PE/OE course shall be dropped for 3 credits with grade point computed as above.

#### 12.8 Assessment for Skill Based Courses

Skill Based Courses are one/two credit courses which are offered from second semester for all B.E./B.Tech.students. The course shall carry 100 marks and are evaluated through internal assessment only. Two Internal Assessments shall be conducted and the total marks obtained shall be reduced to 100 marks. The marks may be submitted to CoE through Head of the Department. The grades earned by the students for Skill Based Courses will be recorded in the grade sheet. However, the grade will not be considered for CGPA calculation.

#### 12.9 Assessment of Mandatory Courses

Mandatory courses are zero credit courses. An internal Assessment test may be conducted for these courses. The marks obtained shall be submitted to CoE through Head of the Department. All the students should successfully complete these courses and same shall be reflected in the grade sheet. However the grade will not be considered for CGPA calculation.

**12.10** Internal marks approved by the Head of the Institution shall be displayed by the respective HODs within 5 days from the last working day.

#### 12.11 Attendance Record

Every teacher is required to maintain an 'ATTENDANCE cum ASSESSMENT RECORD' which consists of attendance marked in each lecture or practical or project work class, the test marks and the record of class work (topic covered), separately for each course. This should be submitted to the Head of the department periodically (at least three times in a semester) for checking the syllabus coverage and the

records of test marks and attendance. The Head of the department will put his/her signature and date after due verification. At the end of the semester, the record should be verified by the Head of the Institution who will keep this document in safe custody (for five years). The records of attendance and assessment of both current and previous semesters should be available for inspection.

#### 12.12 Conduct of Academic Audit

Academic Audit is to be done for every course taught during the semester. For the internal assessments conducted for each course as per details provided in Clause 12, the academic records shall be maintained in the form of documentation for the assignments / case study report / report of mini project submitted by each student and assessment test question paper and answer script. Report of industrial training / internship shall also be maintained, if applicable. For laboratory courses students' record shall be maintained. Further, the attendance of all students shall be maintained as a record. The Head of the Institution shall arrange to conduct the Academic Audit in a semester by forming the respective committees with an external expert as one of the members drawn from a Technical institution of repute near the institute.

#### 13 REQUIREMENTS FOR APPEARING FOR END SEMESTER EXAMINATIONS

A student shall normally be permitted to appear for the End Semester Examinations for all the courses registered in the current semester (vide clause 6) if he/she has satisfied the semester completion requirements (subject to Clause 7).

Further examination registration by a student is mandatory for all the courses in the current semester and all arrear course(s) for the End semester examination failing which the student will not be permitted to move to the higher semester.

A student who has already appeared for any subject in a semester and passed the examination is not entitled to reappear in the same subject for improvement of grades.

#### 14 PASSING REQUIREMENTS

- 14.1 A student who secures not less than 50% of total marks prescribed for the course [Internal Assessment + End semester Examinations] with a minimum of 45% of the marks prescribed for the end-semester Examination, shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for theory, theory cum practical, practical courses (including project work).
- 14.2 If a student fails to secure a pass in any of the courses(except electives) in the current semester examination, he/she shall register and appear for the End Semester Examination in the subsequent semester and his/her internal marks shall be carried over for the next three consecutive semesters only. If a student fails to secure a pass in a course even after three consecutive arrear attempts, the internal marks of that course will become invalid and the particular course will be evaluated only through the End Semester Examination. The student shall be declared to have passed the examination, if he / she secures a minimum 50% marks in the End semester

examination alone.

If the course, in which the student has failed, is a Professional Elective or an Open Elective course, the student may be permitted to complete the same course. In such case, the internal assessment marks obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts till the candidate secures a pass. However, from the third attempt onwards if a student fails to obtain pass marks (IA + End Semester Examination) as per clause 14.1, then he/she shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the end semester examinations alone. If any other Professional Elective or Open Elective course is opted by the student, the previous registration is cancelled and henceforth it is to be considered as a new Professional Elective or Open Elective course. The student has to register and attend the classes, earn the continuous assessment marks, fulfill the attendance requirements as per clause 7 and appear for the end semester examination.

- 14.3 If a student has submitted the project report but absent in the end semester examination of project work, the student is deemed to be failed. In this case and also if the student attends and fails in the End Semester Examination of project work of B.E/B.Tech., he/she shall attend the End Semester Examination again within 60 days from the date of declaration of results. The subsequent viva-voce examination will be considered as re-appearance with payment of exam fees. In case the student fails in the subsequent viva-voce examination also, the student shall reappear in the next End Semester viva-voce examination.
- 14.4 The passing requirement is 50% for the courses which are assessed only through internal assessments (EEC courses except project \work). If a student fails in EEC course (except Project Work/Mini Project) / Mandatory Course / Skill Based Course which are evaluated only through internal assessment, the student shall register for the course again in the subsequent semester, fulfill the norms as specified in clause 14 to earn pass in the course. However, attendance requirement need not be satisfied.

#### 14.5 Photocopy /Revaluation

A candidate can apply for photocopy of his/her semester examination answer paper in a theory course, within two weeks from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of Department. The answer script is to be valued and justified by a faculty member, who handled the subject and recommend for revaluation with breakup of marks for each question. Based on the recommendation, the candidate can register for the revaluation through proper application to the Controller of Examinations. The Controller of Examinations will arrange for the revaluation and the results will be intimated to the candidate concerned through the Head of the Institution. Revaluation is not permitted for practical courses, EEC courses and for project work. A candidate can apply for revaluation of answer scripts for not exceeding 5 courses at a time.

#### 15 AWARD OF LETTER GRADES

15.1 For all theory courses and theory cum practical courses relative grading will be followed. However, in any of the theory courses or theory cum practical courses, if the number of students who have passed that course is less than or equal to 30 then absolute grading shall be followed with the grade range as specified in Table 15.1. For all other courses like Project Work / Internship, Laboratory Courses, Value Added Courses, Skill based Courses Employability Enhancement Courses which are evaluated through internal assessment only absolute grading procedure shall be followed irrespective of the number of students who have passed the course.

Letter Grade	Grade Points	Marks range
O (Outstanding)	10	91- 100
A+(Excellent)	9	81-90
A (Very Good)	8	71-80
B+ (Good)	7	61-70
B (Average)	6	56-60
C (Satisfactory)	5	50-55
RA (Reappearance)	0	<50
W (Withdrawal)	0	
SA (Shortage of Attendance)	0	

**Table 15.1 Award of Letter Grades** 

A student is deemed to have passed and acquired the corresponding credits in a Particular course if he/she obtains any one of the following grades: "O", "A+", "A", "B+", "B", "C".

'SA' denotes shortage of attendance and hence prevented from writing End Semester Examination.

"RA" denotes that the student has failed to pass in that course. "W" denotes withdrawal from the exam for the particular course. The grades RA and W will figure both in Grade Sheet as well as in Result Sheet. If the grade W is given to course, the attendance requirement need not be satisfied.

15.2 For the Co-curricular activities such as National Service Scheme (NSS) / NSO / YRC/ Science club/Literary Club/ Fine arts club, a 'Completed' remark will appear in the grade sheet if the student secures 75% attendance in any one of these activities. The training and camp shall be completed during the first year of the programme. However, for valid reasons, the Head of the Institution may permit a student to complete this requirement in the second year. Successful completion of any one of the above co-curricular activities is compulsory for the award of degree.

#### 15.3 Grade sheet

After results are declared, Grade Sheets will be issued to each student which will contain the following details:

- List of courses enrolled during the semester and grade scored
- List of courses studied for Hons., Minor and any other additional courses in

which the student has passed with the grades under the title additional courses.

- The Grade Point Average (GPA) for the semester considering only the courses of curriculum (not the additional courses)
- The Cumulative Grade Point Average (CGPA) of all courses enrolled from first semester onwards considering only the courses of curriculum (not the additional courses). However, for the students who have successfully completed the requirements of B.E. / B. Tech. (Hons) and B.E. / B.Tech. Minor vide Clause 4.14, grades scored in the six additional courses shall be taken into account for the computation of CGPA.

GPA for a semester is the ratio of the sum of the products of the number of credits for courses cleared and the corresponding points to the sum of the number of credits for the courses cleared in the semester.

CGPA will be calculated in a similar manner, considering all the courses registered from first semester. RA grades will be excluded for calculating GPA and CGPA.

$$GPA/CGPA = \frac{\sum_{i=1}^{n} C_i GP_i}{\sum_{i=1}^{n} C_i}$$

Where,

*C<sub>i</sub>* is the number of Credits assigned to the course

 $GP_i$  is the point corresponding to the grade obtained for each course

n is number of all courses successfully cleared during the particular semester in the case of GPA and during all the semesters in the case of CGPA.

- 15.4 If a student successfully completes all the requirements of the programme and also meets the requirements of B.E. / B. Tech. (Hons) or B.E. / B. Tech. Minor but desires not to opt for the additional qualification, then he/she has to submit a declaration with regard to the same 30 days before the completion of semester VIII.
- The grades O, A+, A, B+, B, C obtained for the course (not the part of curriculum) 15.5 shall figure in the Grade Sheet under the title 'Value Added Courses/Internship/Industrial training/Competency Development Course/Skill Based Course/Research Publication Course'. The courses for which the grades obtained are RA, SA will not figure in the Grade Sheet.

For the students who complete the 'Mandatory Course' satisfying the attendance requirement, title of Mandatory Course will be mentioned in the Grade Sheet.

**15.6** The CGPA earned shall be converted into percentage of marks as follows:

Percentage of Marks = CGPA X 10.

#### 16.0 ELIGIBILITY FOR THE AWARD OF THE DEGREE

- **16.1** A student shall be declared to be eligible for the award of the B.E./B.Tech Degree, provided the student has
  - i. Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.
  - ii. Successfully completed the course requirements, appeared for the End-Semester examinations and passed all the subjects prescribed in all the 8 semesters within a maximum period of 7 years and 6 years in the case of lateral entry reckoned from the commencement of the first semester (third in the case of lateral entry) to which the candidate was admitted.
  - iii. Successfully passed any additional courses prescribed by the Chairperson, Academic Council whenever readmitted under new regulations.
  - iv. Student should attend Personality and Character Development (NSS / NSO / YRC / Science Club / Literature Club / Fine Arts Club requirements)
    Every student shall put in a minimum of 75% attendance in the personality development program/training/camp compulsorily. The training and camp shall be completed during the first year of the programme. However, for valid reasons, the Head of the Institution may permit a student to complete this requirement in the second year. Successfully completed in the above co-curricular activities is compulsory for the award of degree.
  - v. No disciplinary action pending against the student.
  - vi. The award of Degree must have been approved by the syndicate of the University.

#### 16.2 Classification of the Degree Awarded

#### **16.2.1 FIRST CLASS WITH DISTINCTION**

A student who satisfies the following conditions shall be declared to have passed the examination in First class with Distinction:

- Should have passed the examination in all the courses of all the 8 semesters and 6 semesters in the case of Lateral Entry in the student's First Appearance within five years and four years in the case of Lateral Entry. Withdrawal from examination (vide Clause 17) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50.
- One year authorized break of study (if availed) is included in the five years and four years in the case of lateral entry for award of First class with Distinction.
- Should not have been prevented from writing End Semester Examination in any
  of the courses of the Curriculum making up the total credit requirement.
- A student who satisfies norms given in clause 4.14 becomes eligible for classification of the degree with B.E./B.Tech. (Hons.) and B.E./B.Tech. minor.
- Details are provided in Table 16.2.1

**Table 16.2.1 First Class with Distinction** 

Degree (i)	Duration of programme (ii)	Duration permitted (iii)	Additional credits above the requirement of curriculum (iv)	CGPA (v)	Pass in (vi)	Break of study (vii)	Prevention due to lack of attendance	Withdrawal from writing end semester examination (viii)
B.E./B.Tech. (Regular)	4	5	-	8.50	First attempt	One year authorized break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./B.Tech. Lateral Entry	3	4	-	8.50	First attempt	One year authorized break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./B.Tech. (Honours)	3/4 years (Lateral entry and Regular respectively)	4/5 years (Lateral entry and Regular respectively)	18 credits from more than one verticals of the same programme	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./B.Tech. minor in other specialization	3/4 years (Lateral entry and Regular respectively)	4/5 years (Lateral entry and Regular respectively)	18 credits from any one vertical of the other programme	8.50	First attempt	One year authorized break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt

#### 16.2.2 FIRST CLASS

A student who satisfies the following conditions shall be declared to have passed the examination in First class:

- Should have passed the examination in all the courses of all eight semesters (6 semesters in the case of Lateral Entry) within five years (four years in the case of Lateral Entry).
- One year authorized break of study (if availed) or prevention from writing the End Semester examination due to lack of attendance (if applicable) is included in the duration of five years (four years in the case of lateral entry) for award of First class.
- Should have secured a CGPA of not less than 6.50.
- A student who satisfies norms given in clause 4.14 becomes eligible for classification of the degree with B.E./B.Tech. (Hons.) and B.E./B.Tech. minor.
- Details are provided in Table 16.2.2

Table 16.2.2 First Class

Degree (i)	Duration of programme (ii)	Duration permitted (iii)	Additional credits above the requirement of curriculum (iv)	CGPA (v)	Pass in (vi)	Break of study (vii)	Prevention due to lack of attendance	Withdrawal from writing end semester examination (viii)
B.E./B.Tech. (Regular)	4	5	-	6.50	1	One year authorised break of study included in the Duration permitted (iii)		-
B.E./B.Tech. Lateral Entry	3	4	-	6.50	-	One year authorised break of study included in the Duration permitted (iii)	included in the Duration permitted (iii)	-
B.E./B.Tech. (Honours)	3/4 years (Lateral entry and Regular respectively)	4/5 years (Lateral entry and Regular respectively)	18 credits from more than one verticals of the same programme		First attempt	One year authorised break of study included in the Duration permitted (iii)	•	Will not be considered as an attempt
B.E./B.Tech. minor in other specialization	3/4 years (Lateral entry and Regular respectively)	4/5 years (Lateral entry and Regular respectively)	vertical of the	6.50	-	One year authorised break of study included in the Duration permitted (iii)		Will not be considered as an attempt

#### 16.2.3 SECOND CLASS

Students who pursue B.E./B.Tech. in Regular mode or lateral entry mode or B.E./B.Tech. minor in specialisation of another discipline who are not covered in clauses 16.2.1 and 16.2.2 and who qualify for the award of the degree (vide Clause 16.1) shall be declared to have passed the examination in Second Class.

- 16.2.4 A student who is absent in the End Semester Examination in a course / project work after having registered for the same shall be considered to have appeared in that examination (except approved withdrawal from End Semester Examinations as per Clause 15) for the purpose of classification.
- **16.2.5** Student earned additional 18 credits as per Clause 4.14.1 and 4.14.2 but does not satisfy the conditions mentioned in 16.2.1 or 16.2.2 shall not be awarded B.E./B.Tech. (Hons.)In such case if the student becomes eligible for First Class, while computing CGPA with the PE/OE courses with higher grades, the student shall be awarded B.E. / B.Tech. in First Class only.

#### 16.3 Ranks Awarded to Students

Ranks are awarded to the students for each program based on the following Criteria,

- The total number of ranks awarded is Top 5 % of the students enrolled in the particular programme.
- The students who have scored greater than or equal to 8.5 CGPA will be eligible for rank calculations.
- Students should have passed the end semester examinations in all the courses
  of all the eight semesters (six semesters in case of LEA) in their first appearance
  without any break of study.

#### 17 PROVISION FOR WITHDRAWAL FROM EXAMINATION

- 17.1 A student, may for valid reasons, (medically unfit / unexpected family situations / sports approved by Chairman, Sports Board, Anna University / Head of the Institution) be granted permission to withdraw from appearing for the end semester examination of any one course or courses in ANYONE of the semester examinations during the entire duration of the degree programme.
- 17.2 Withdrawal application is valid only if the student is otherwise eligible to write the examination and if it is made within 10 days prior to the commencement of the examination in that course or courses and recommended by the Head of the department, approved by Head of the Institution and intimated to Controller of Examination. For a student to withdraw from a course / courses, he/she should have registered for the course, fulfilled the attendance requirements (vide clause 7) and earned continuous assessment marks.
- **17.2.1** Notwithstanding the requirement of mandatory TEN days notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- 17.3 In case of withdrawal from a course / courses (Clause 13) the course will figure both in Grade Sheet as well as in Result Sheet. However, withdrawal shall not be considered as an appearance for the eligibility of a candidate for First Class with Distinction.
- 17.4 If a student withdraws from writing end semester examinations for a course or courses, he/she shall register for the same in the subsequent semester and write the end semester examination(s).
- 17.5 If a student applies for withdrawal from Project Work, he/she will be permitted for the withdrawal only after the submission of project report before the deadline. However, the student may appear for the viva voce examination within 30/60 days after the declaration of results for project work and the same shall not be considered as reappearance.
- **17.6** Withdrawal is permitted for the End Semester Examinations in the final semester, as per clause 16.2.1

#### 18 PROVISION FOR AUTHORISED BREAK OF STUDYFROM A PROGRAMME

- **18.1** A student is permitted to go on authorized break of study for a maximum period of one year as a single spell.
- **18.2** Break of Study shall be granted only once for valid reasons for a maximum of one

year during the entire period of study of the degree programme. However, in extraordinary situation the student may apply for additional break of study not exceeding another one year by paying prescribed fee for break of study. If a student intends to temporarily discontinue the programme in the middle of the semester for valid reasons, and to rejoin the programme in a subsequent year, permission may be granted based on the merits of the case provided he /she applies to the Chairperson, Academic council in advance, but not later than the last date for registering for the end semester examination of the semester in question, through Head of the Department, stating the reasons therefore and the probable date of rejoining the programme.

- 18.3 The students permitted to rejoin the programme after break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of rejoining. The students rejoining in new Regulations shall apply to the Chairperson, Academic Council in the prescribed format through Head of the Department at the beginning of the readmitted semester itself for prescribing additional courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum. Total number of credits to be earned by the student shall be more than or equal to the total number of credits prescribed in the curriculum in-force. If the credits assigned for L T P of the courses are not same in two Regulations under consideration, then equivalence shall be arrived as per the credit assignment followed in the Regulations in force.
- **18.4** The authorized break of study is included in the duration specified for passing all the courses for the purpose of classification (vide Clause 16.2).
- 18.5 The total period for completion of the Programme reckoned from, the commencement of the first semester to which the student was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.
- **18.6** If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'Break of Study' (Clause 18.1)

#### 19.0 DISCIPLINE AND BEHAVIOUR

Every student is required to observe disciplined and decorous behavior both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the Institution and the University. The Head of Institution shall constitute a disciplinary committee, to enquire into acts of indiscipline and notify about the disciplinary action recommended for approval. In case of any serious disciplinary action which leads to suspension or dismissal, then a special committee shall be constituted by the Head of the Institution for taking the final decision and same be communicated to the University.

19.1 If a student indulges in malpractice in any of the End Semester Examination / Internal Examination he / she shall be liable for punitive action as prescribed by the Institution from time to time.

### 20.0 REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The Institution may from time to time revise, amend or change the Regulations, Curriculum, Syllabus and Scheme of examinations with the approval of Academic Council.